

4SL4 Assignment 1

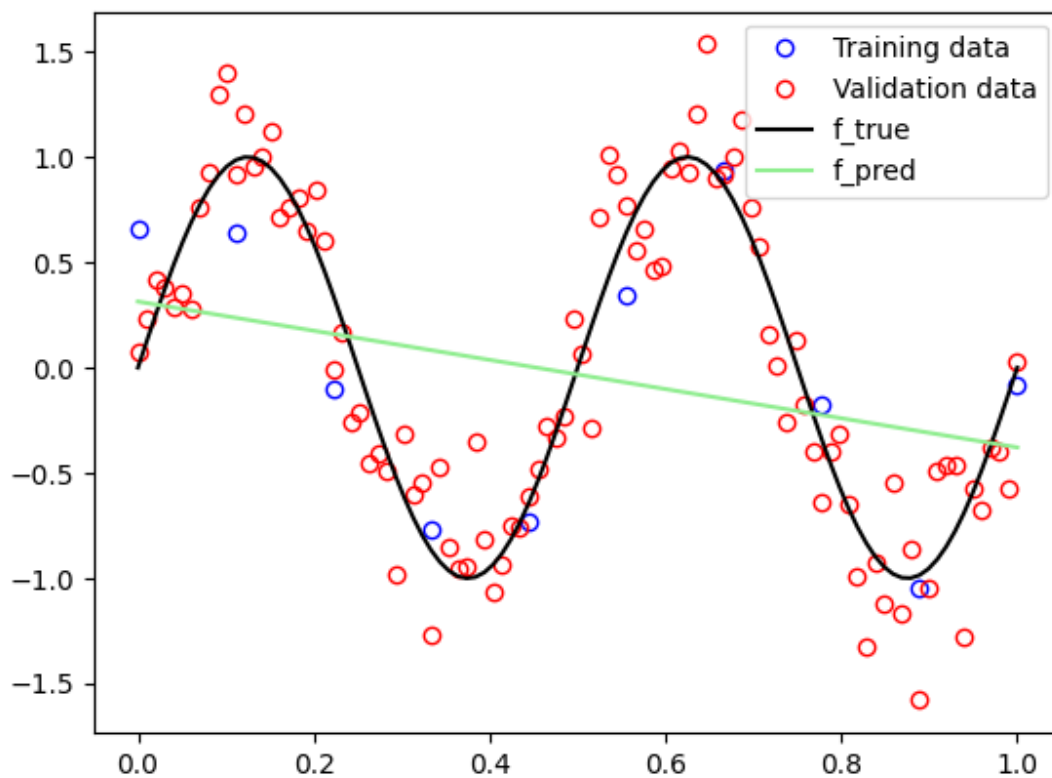
Aaron Pinto

400190637

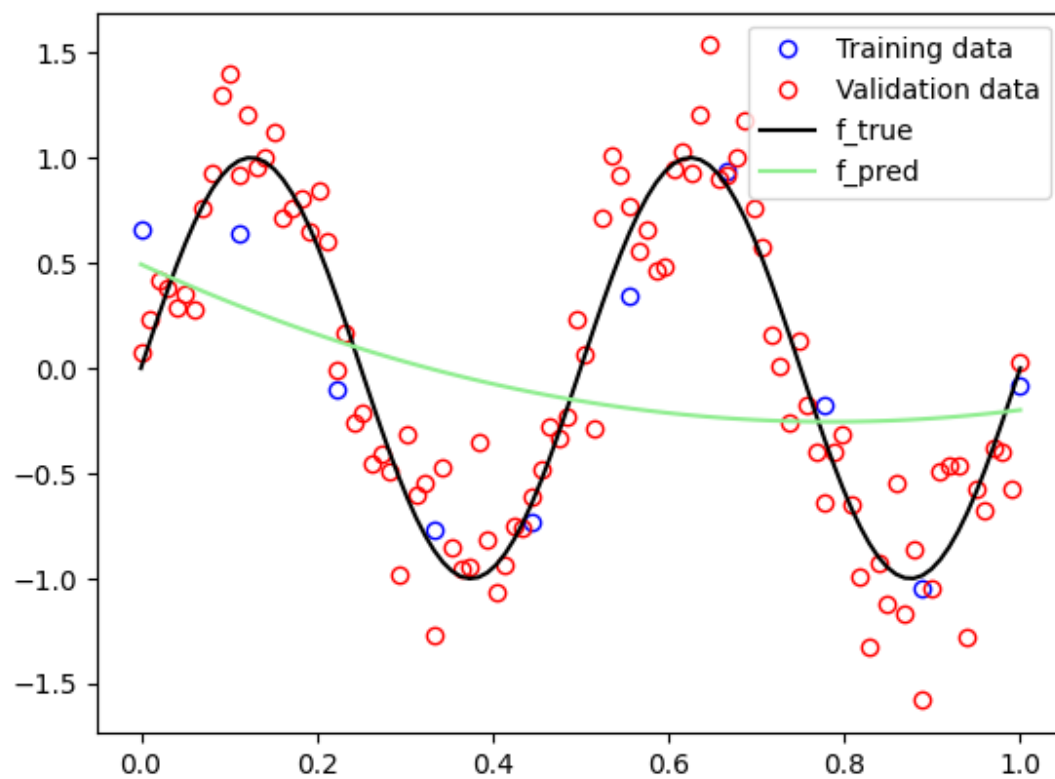
pintoa9

The training error decreased as expected as the polynomial degree grew larger. The validation error decreased and then increased at $M = 7$ as the polynomial degree grew larger. This is because the model was overfitting to the training data.

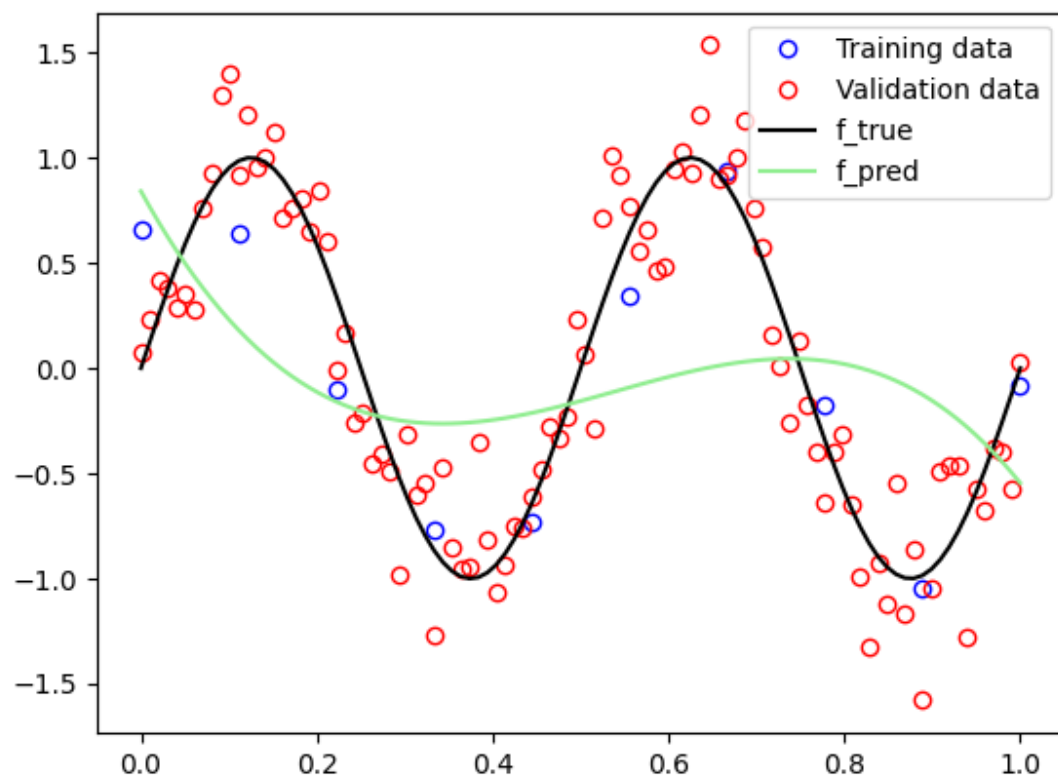
Degree 1



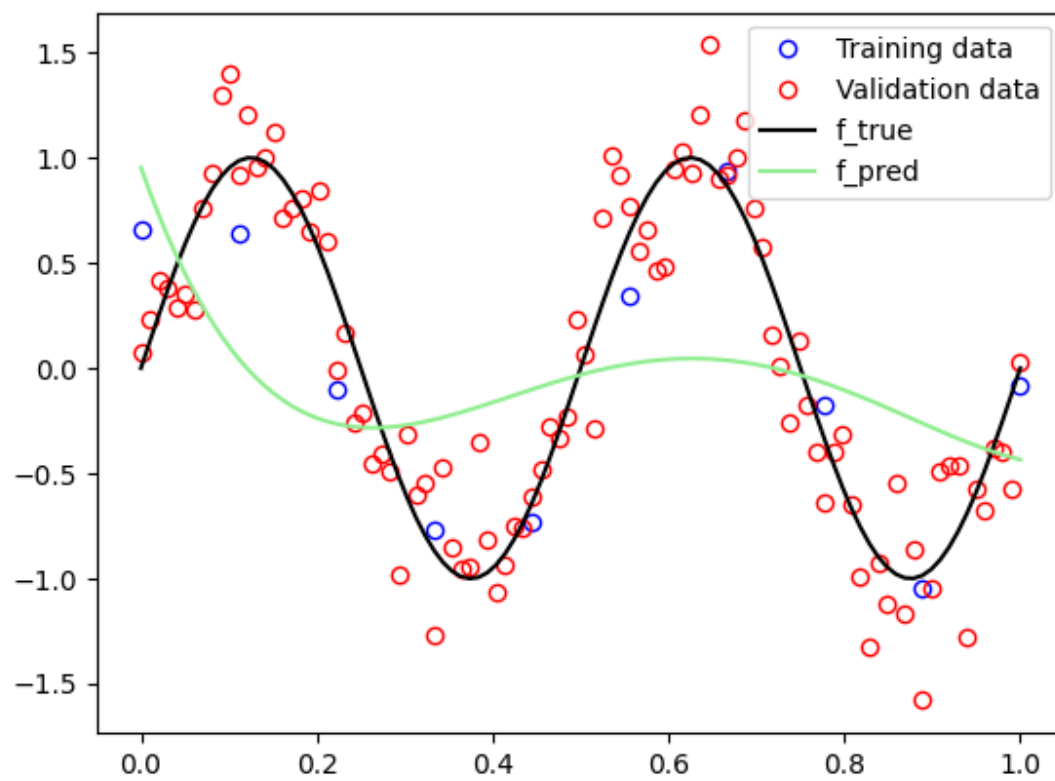
Degree 2



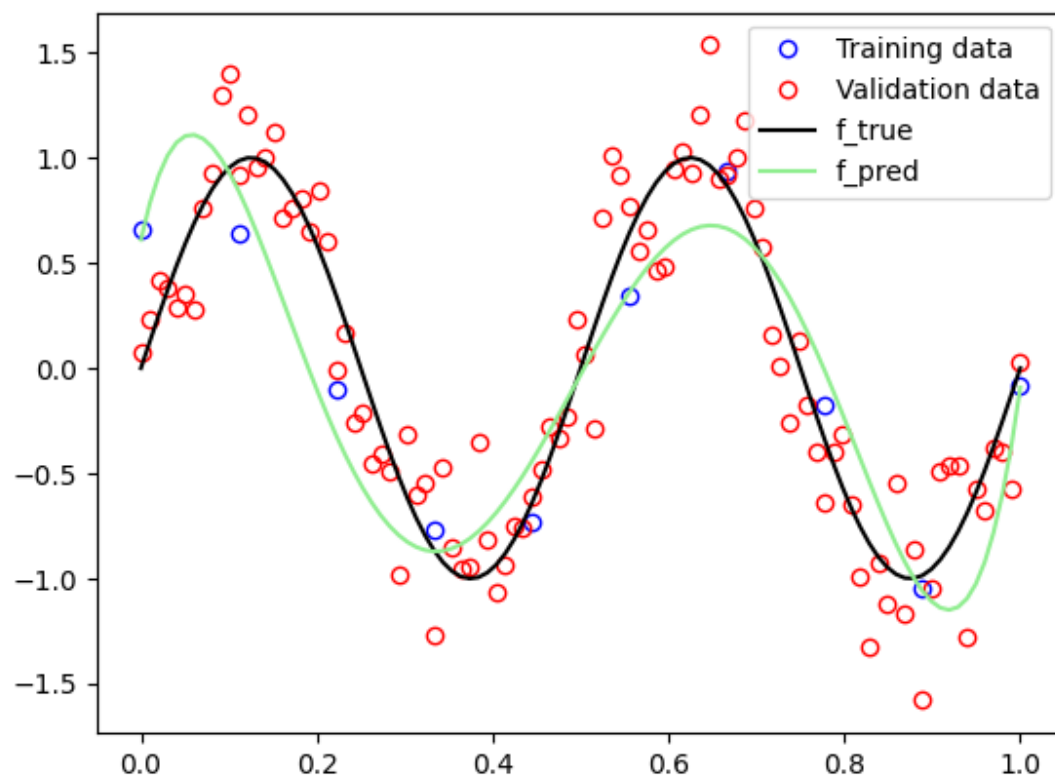
Degree 3



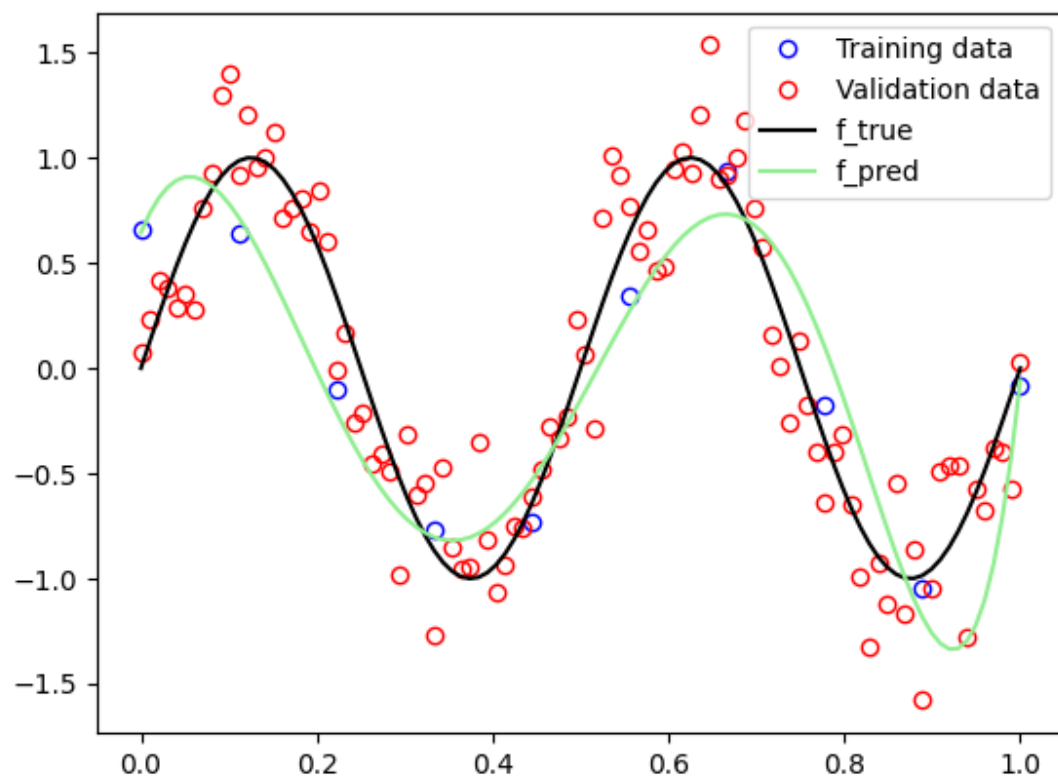
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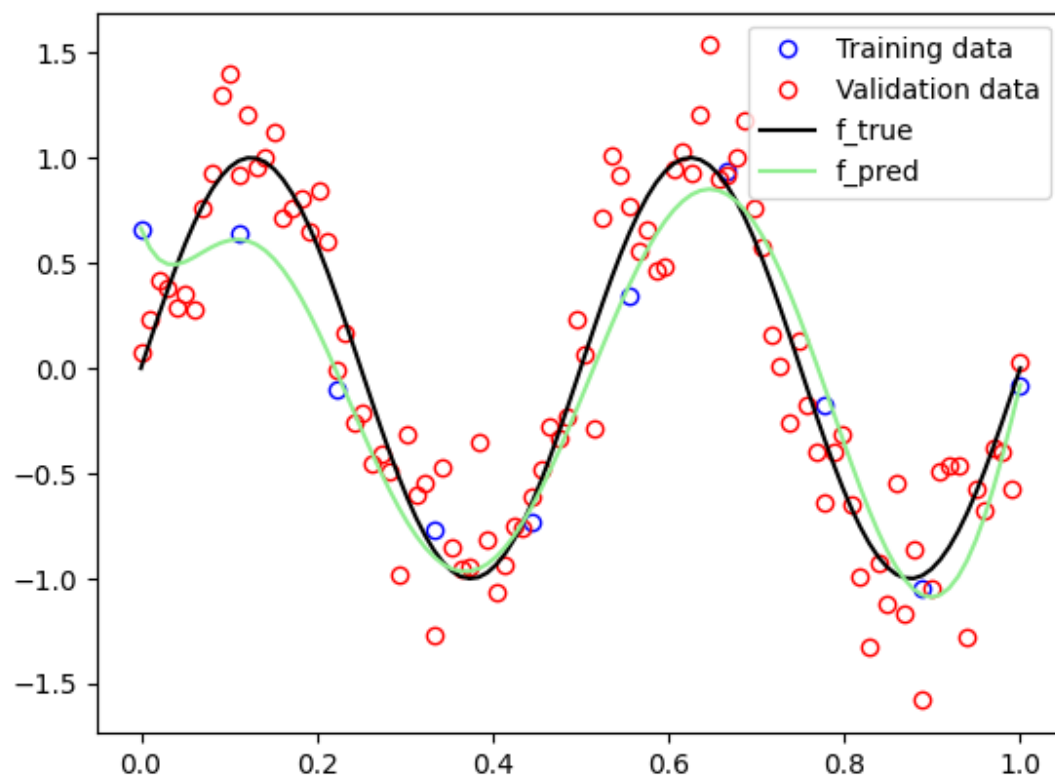
Degree 5



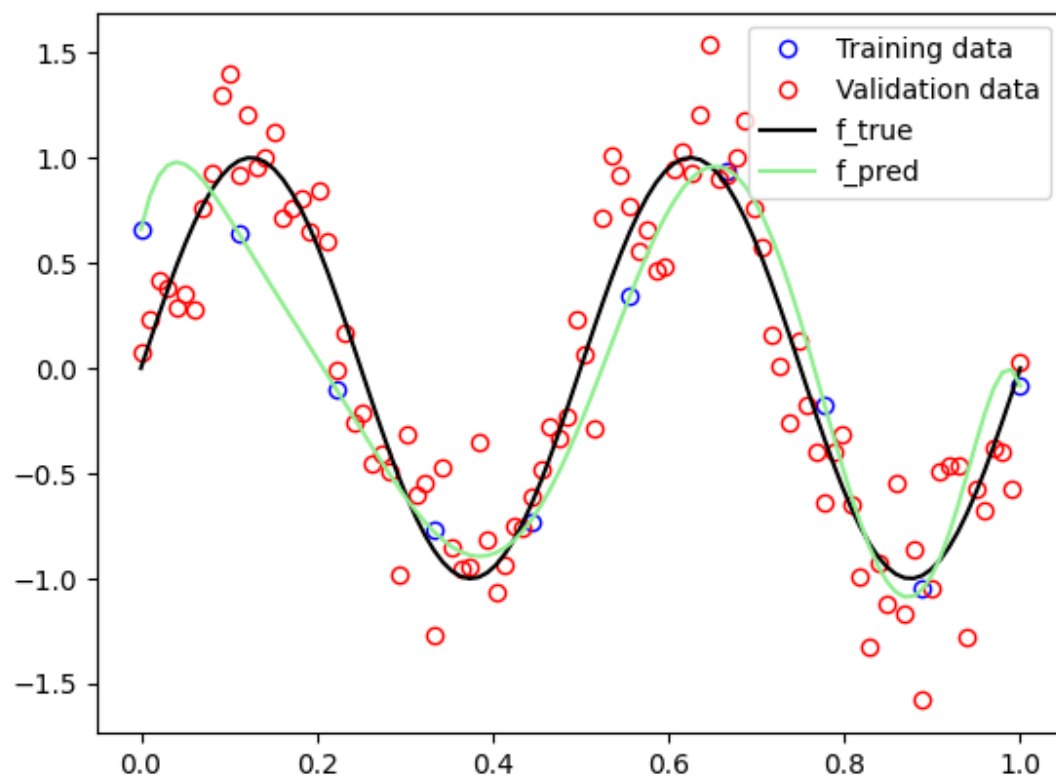
Degree 6



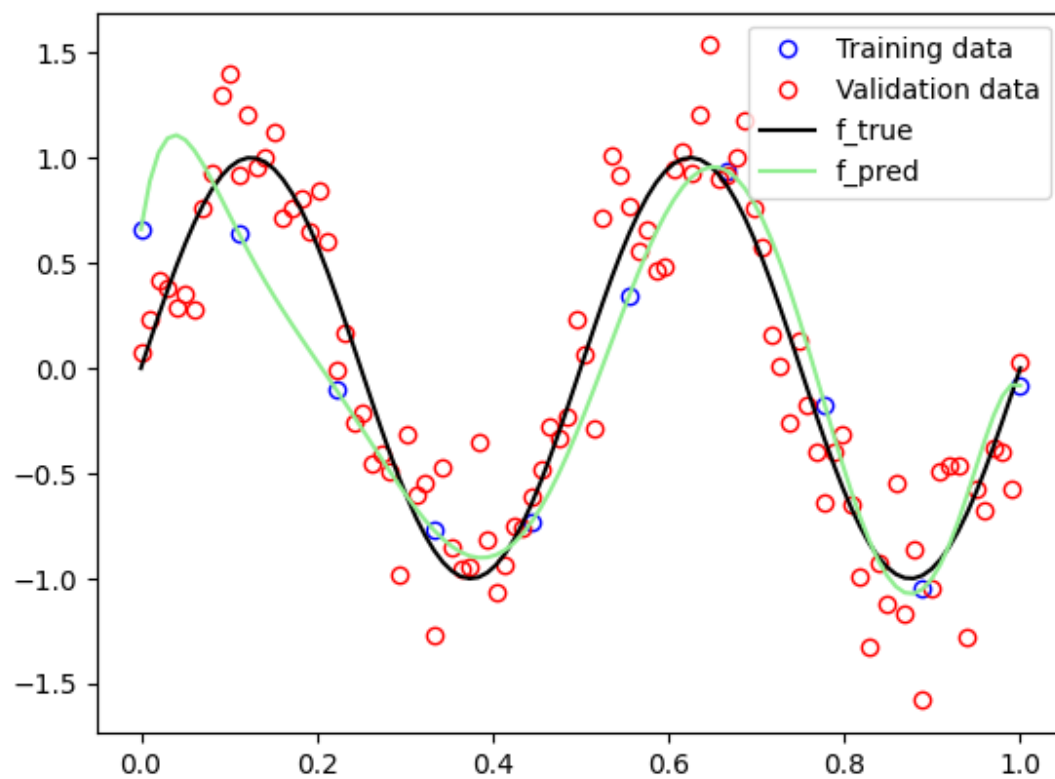
Degree 7



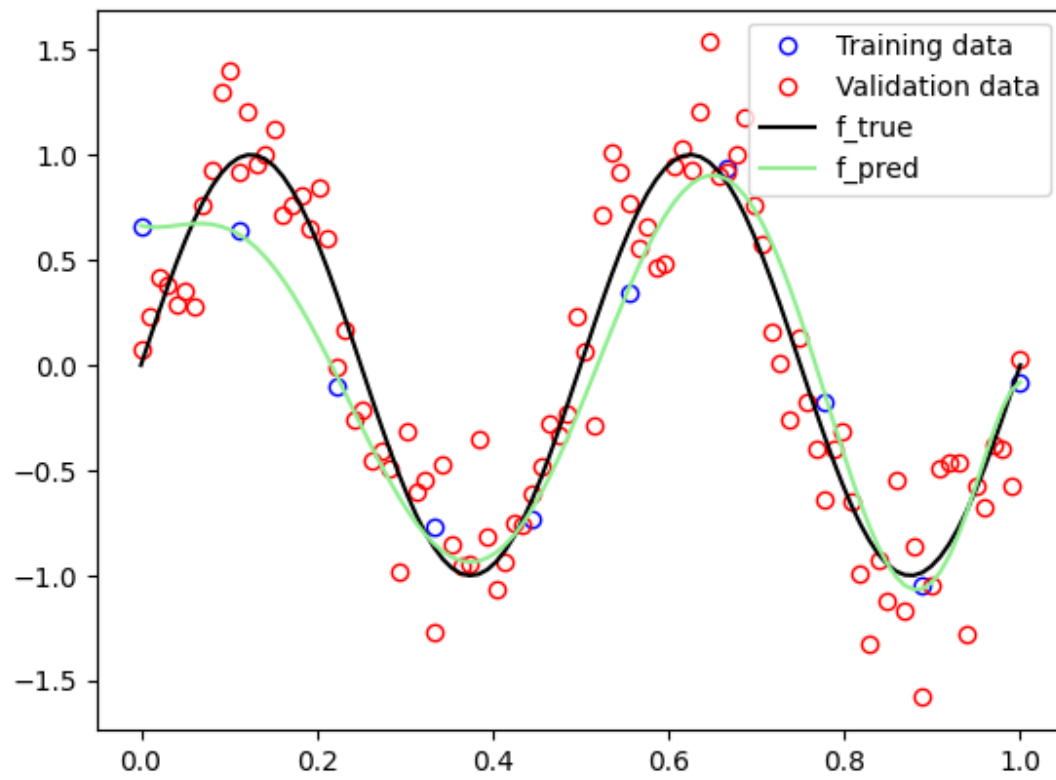
Degree 8



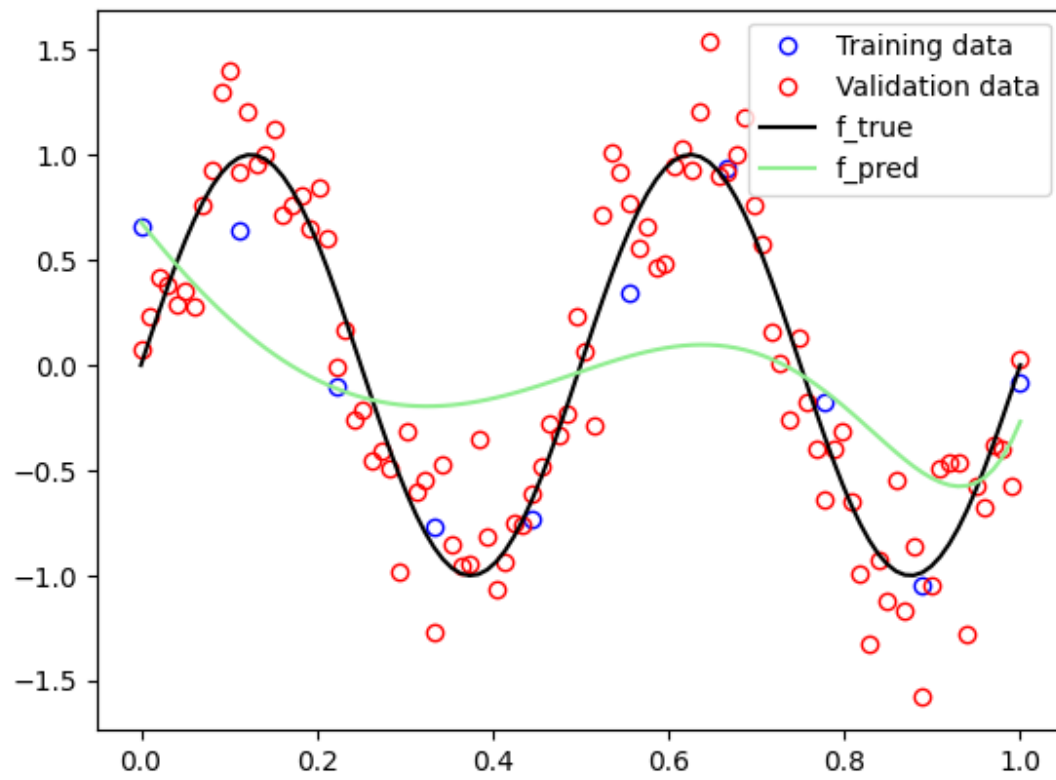
Degree 9



$\text{Lambda} = e^{-21.0}$



$\text{Lambda} = e^{-6.0}$



Errors vs M

